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PATENT
Customer No. 22,852
Attorney Docket No. 08350.2521

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)	
)	
Koch et al.)	Group Art Unit: 2125
)	
Application No.: 10/686,483)	Examiner: A. Kosowski
)	
Filed: October 16, 2003)	
)	
For: OPERATOR INTERFACE FOR A)	Confirmation No.: 8062
WORK MACHINE)	

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

REPLY TO OFFICE ACTION

This paper is responsive to the Office Action mailed June 28, 2005.

Claims 1-23 are pending in the application with claims 1, 12, 18, and 23 being the independent claims.

Interview Summary

Applicants acknowledge with appreciation the personal interview granted by Examiner Alexander Kosowski on September 6, 2005, and the courtesies extended to Applicants' undersigned representative at the interview by Examiner Kosowski. The interview entailed a substantive discussion of the prior art applied in the Office Action and enabled Applicants' representative to advance arguments in support of patentability of the claims. A summary of the points discussed follows herewith.

Applicants' representative referred first to the Davidson, et al. patent (U.S. Patent No. 5,854,988) (hereafter, Davidson) and pointed out that Davidson recognized a scenario whereby a joystick can be switched between manual and automatic modes, but does not recognize or disclose any scenario whereby there is switching between a linkage control mode and a display control mode.

Applicants' representative then referred to the Trahan, et al. patent (U.S. Patent No. 6,354,023) (hereafter, Trahan) and noted that while Trahan disclosed the use of buttons on a joystick to switch between controlling a number of different items of hydraulic equipment, there was no suggestion in Trahan of switching between a linkage control mode and a display control mode.

Having briefly discussed what each of Davidson and Trahan disclosed in connection with switching between one or the other of plural control functions, Applicants' representative then pointed out that there was neither a motivation to combine the two references, nor would the result, even if they were somehow combined, be switching the operating mode between a linkage control mode and a display control mode. It was noted that only with impermissible hindsight, after having read Applicants' disclosure, could one derive from the prior art itself the structure and function necessary to switch between a linkage control mode and a display control mode.

Examiner Kosowski tentatively agreed with the substance of the argument summarized above, but reserved his final decision on the matter until receipt of a written formal response setting forth the arguments. The interview then came to an end with

the understanding that a written response would be forthcoming. Following hereafter is Applicants' response to the Office Action commensurate with the arguments set forth at the interview.

Rejections Under 35 U.S.C. § 103(a)

The Office Action presents a single rejection of all of claims 1-23 as unpatentable over Davidson in view of Trahan. While the body of the Office Action incorrectly designates the patent number for Davidson, the correct patent number is apparent from the Form PTO-892 accompanying the Office Action.

Applicants acknowledge with appreciation the obvious effort to which the Examiner has gone in addressing the several claims over the course of some seven pages within the Office Action, and in pointing out those portions of the Davidson and Trahan patents he deems relevant to various claims. The Examiner's efforts in this regard have enabled Applicants to better focus the following arguments and comments in pointing out why all of claims 1-23 are patentable as they stand.

Davidson relates to controlling an excavator. Davidson may use joysticks 49 to control operation of the bucket, stick, and boom cylinders under manual control, or he may convert to automatic control with manual control of the stick cylinder only. See column 5, lines 1-8 of Davidson. Trigger switch 48 in Davidson allow the conversion from manual to automatic control and vice versa. See column 7, lines 25-62 of Davidson. When activating the trigger switch 48 to convert to automatic control, the control panel simultaneously converts from a set-up screen to an indicate screen. The set-up screen aids the operator in setting up what will take place during automatic

control, and the indicate screen indicates and visually represents the desired effect that the excavator will have during automatic operation. Incidentally, the indicate screen is a default screen that will appear, whether the machine is in manual or automatic mode, if no data entry activity takes place for five seconds.

Thus, Davidson discloses that a joystick controlled machine may employ a trigger switch associated with the joystick to convert between an automatic mode and a manual mode.

Trahan relates to snow groomers. Trahan discloses a joystick with a number of buttons, some of which, upon activation, allow the operator to switch what the joystick controls. See, for example, column 7, lines 3-9 of Trahan. Thus Trahan teaches that a joystick may be provided with switches to enable the operator to switch between functions that the joystick will control. These functions relate to various hydraulic equipment associated with the snow groomer in Trahan.

After making findings of fact as to what Davidson and Trahan disclose, the Office Action moves on to conclude obviousness. However, the Office Action fails to establish a prima facie case of obviousness.

A prima facie case of obviousness requires 1) some suggestion or motivation in the prior art as to why the proposed modification of the primary reference would have been desirable or beneficial, 2) a reasonable expectation of success, and 3) that the result of the modification produce all the claim limitations. See MPEP 2142 and 2143. In this case, there is no suggestion or motivation stemming from the prior art itself that would lead one skilled in the art to make the proposed modification. A fair analysis of

the facts as they are presented in the prior art leads to the conclusion that the proposed modification could only be made through the use of impermissible hindsight. By the same fair analysis, even if one were to combine the prior art teachings that are present in the prior art applied in the rejections, the resulting combination would not provide all the elements of the claims.

Beginning with the discussion in the Office Action on pages 2 and 3 in connection with the rejection of claim 1, the Office Action notes the absence from Davidson of at least two features: 1) an input device adapted to generate a display input signal to input information to a machine display system, and 2) a switch adapted to switch the operating mode between the linkage control mode and the display control mode. The Office Action then looks to Trahan to make up this deficit. In doing so, the Office Action finds that Trahan

teaches an operator interface for a work machine whereby a multifunction joystick is adapted to control multiple functions of a control system (col. 3, lines 10-25), and whereby a control module is capable of operating in two different modes which are selected via a switch, the same input device being used for both modes (col. 2, lines 35-55).

This finding (paragraph bridging pages 2 and 3 of the Office Action), however, is not sufficient to permit the leap that has been taken to the legal conclusion of obviousness.

Setting the Applicants' disclosure aside, which one must do here for a proper analysis, there is plainly nothing present in what Trahan "teaches" that would fairly suggest providing in Davidson that which the Office Action states is not explicitly taught in Davidson. The teaching or disclosure in Trahan that a joystick may be provided with buttons or switches to enable the assignment of alternate control functions to the

joystick for various hydraulic equipment on the snow groomer that is the subject of Trahan's disclosure, plainly does not address the concept of switching between a linkage control mode and a display control mode. Therefore, the prior art itself (Trahan) fails to make a suitable suggestion for modifying the system of Davidson to supply what the Office Action acknowledges is absent in Davidson.

Moreover, even if one were to somehow combine what Trahan actually teaches with the disclosure of Davidson, the result would not be what is required by claim 1. While the fact finding in the Office Action as to Davidson and Trahan is not clearly erroneous, the conclusion drawn from the facts found is plainly untenable.

Turning next to the discussion in the Office Action on pages 5 and 6 in connection with the rejection of claim 12, the Office Action again notes the absence from Davidson of 1) switching the mode of operation of a control module between the linkage control mode and the display control mode and 2) operating the input device in the other of the linkage control mode or display control mode. Once again, as was done in the rejection of claim 1, the Office Action looks to Trahan to make up this deficit.

In response to the rejection of claim 12, Applicants make reference to the arguments set forth above in connection with the rejection of claim 1. To reiterate, while the fact finding with respect to Davidson and Trahan is not clearly erroneous, the conclusion of obviousness that has been drawn as a result of the facts found can only be made with the aid of impermissible hindsight afforded by the Applicants' disclosure.

Next, addressing the discussion in the Office Action on pages 6 and 7 in connection with the rejection of claim 18, the Office Action this time lists three elements

absent from Davidson. The Office Action notes that Davidson does not explicitly teach 1) that the input device both controls the mechanical linkage and the display input system, 2) that a control module is adapted to operate in one of a linkage control and a display control mode, and 3) that the switch is adapted to switch the operating mode between the linkage control mode and the display control mode. However, as was the case with the rejection of claims 1 and 12, the Office Action again looks to Trahan to supply that which is missing from Davidson.

In responding to the rejection of claim 18, Applicants must once again refer back to previous arguments made in connection with claims 1 and 12. Here, the Office Action recognizes a deficit in Davidson that is even more substantial than that recognized in the rejection of claims 1 and 12. Trahan is again relied upon to supply that deficit. With respect to the rejection of claim 18, an even greater force of logic compels a conclusion that the Office Action has employed impermissible hindsight in suggesting the proposed combination of references.

As to independent claim 23 and the discussion on pages 8 and 9 of the Office Action in connection with its rejection, the Office Action recognizes that Davidson does not disclose 1) that the control means operates in both a linkage control and a display control mode, and 2) that the switching means switches operating modes between linkage control and display control. In keeping with the pattern set, the Office Action relies again on Trahan to make up the difference.

In response to this rejection, Applicants once again refer back to that which they have previously stated in connection with the rejections of claims 1, 12, and 18 and

firmly take the position that the facts found in the references will not support the conclusion of obviousness. Absent Applicants' disclosure, the combined disclosures of Davidson and Trahan simply do not reveal that which is set forth in claim 23 to the person having ordinary skill in the art.

While the foregoing arguments have, in the interest of efficiency of response, concentrated on the rejections as they pertain to the independent claims, Applicants maintain that the dependent claims are patentable both by reason of their dependency on independent claims that are patentable, and because they each recite additional features providing bases for finding these claims allowable. While some claimed features may individually be found in one or the other of the references, each claim must be considered as a whole. When so considered, and as should be amply evident from the foregoing discussion of the rejection as it pertains to the independent claims, the prior art will not support a conclusion of obviousness with respect to any of claims 1-23.

Conclusion

After having read a disclosure such as that of the present Application, and after having been apprised of the specific embodiments set forth, it is tempting indeed to seek out the component parts in prior art disclosures, read more into those disclosures than is actually there, and then propose that it would have been obvious to do what Applicants have done. The law as it relates to obviousness does not permit this.

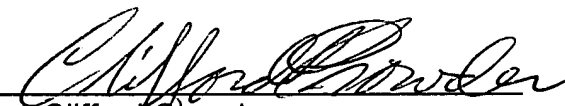
In view of the foregoing amendments and remarks, Applicants respectfully request reconsideration of this application and the timely allowance of pending claims 1-23.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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Dated: September 8, 2005

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